

SUPPORT FOR THE AMENDMENTS

Claim 9 was previously canceled.

Claims 2, 3, 12, and 13 have been canceled.

Claims 1, 4, and 14-16 have been amended.

Claims 23-37 have been added.

The amendment of Claims 1, 4, and 14-16 finds support in the corresponding claims as previously filed, as well as in the specification at page 10, line 10 to page 11, line 3. New Claims 23-37 find support on page 7, line 18 to page 8, line 3 and page 10, line 10 to page 11, line 3, as well as in original Claims 1-9.

No new matter has been added by the present amendment.

REMARKS

Claims 1, 4-8, 10, 11, and 14-37 are pending in the present application.

Applicants would like to thank Examiner Raghu for the helpful and courteous discussion with their undersigned Representative on September 11, 2007. During this discussion, various amendments and arguments were discussed to address the outstanding rejections. The content of this discussion is believed to be reflected in the amendments and remarks herein. Reconsideration is respectfully requested in view of the following comments and the amendments presented herein.

The rejections of: (a) Claims 1, 4, 6-8, 10-11, 14, 17, and 19-22 under 35 U.S.C. §112, first paragraph (written description), and (b) Claims 1, 4, 6-8, 10-11, 14, 17, and 19-22 under 35 U.S.C. §112, first paragraph (enablement), are obviated by amendment.

In the outstanding Office Action, the Examiner recognizes a sufficient written description and enablement for a mutated alkaline cellulase which is obtained by deleting, from a cellulase having the amino acid sequence of SEQ ID NO: 2, or from the corresponding positions of SEQ ID NOs: 7, 8, or 9, or a homologous amino acid sequence exhibiting at least 95% sequence homology to SEQ ID NO: 2, a peptide consisting of one or more amino acid residues chosen from the 357<sup>th</sup> to 362<sup>nd</sup> positions in SEQ ID NO: 2 or from corresponding positions of said homologous amino acid sequence and replacing the peptide with an insertion peptide having 2 to 5 amino acid residues, wherein said mutated alkaline cellulase has alkaline cellulase activity.

Applicants note, however, that the specification as filed at page 10, lines 6-9 clearly provide support for an insertion peptide having 2 to 6 amino acids. Further support for an

insertion peptide having 2-6 amino acids is provided by page 10, line 10 to page 11, line 3 which recites:

Preferred examples of the peptide to be inserted include asparagine-threonine-alanine-valine-glycine-isoleucine, alanine-serine-methionine-leucine-phenylalanine-glutamic acid, cysteine-leucine-glycine-histidine-serine, tyrosine-glutamine-lysine-alanine-alanine, aspartic acid-methionine-isoleucine-valine, isoleucine-threonine-proline-lysine, glycine-leucine-cysteine, and serine-valine-phenylalanine, *inter alia*, a peptide containing alanine residues at both ends thereof and having 3 to 6 residues; more preferably alanine-any one amino acid-alanine; even more preferably alanine-glycine-alanine, alanine-histidine-alanine, or alanine-arginine-alanine.

Therefore, Applicants submit that the scope of the claims as presented herein are fully described and enabled by the present application and Applicants should be entitled to an insertion peptide having 2-6 amino acids. In other words, the specification provides a sufficient written description and enablement for a mutated alkaline cellulase which is obtained by deleting, from a cellulase having the amino acid sequence of SEQ ID NO: 2, or from the corresponding positions of SEQ ID NOs: 7, 8, or 9, or a homologous amino acid sequence exhibiting at least 95% sequence homology to SEQ ID NO: 2, a peptide consisting of one or more amino acid residues chosen from the 357<sup>th</sup> to 362<sup>nd</sup> positions in SEQ ID NO: 2 or from corresponding positions of said homologous amino acid sequence and replacing the peptide with an insertion peptide having *2 to 6 amino acid residues*, wherein said mutated alkaline cellulase has alkaline cellulase activity. The specification also provides sufficient support for methods of making the same.

Withdrawal of these grounds of rejection is requested.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon



Vincent K. Shier, Ph.D.  
Registration No. 50,552

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413-2220  
(OSMMN 08/03)